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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,213	12/08/2004	**Mitoku Yamane**	CS02	5716

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PACIFIC RING SERVICES, INC.
1143 CHRISTINA MILL DRIVE
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EXAMINER	
TRAN, QUOC A	
ART UNIT	**PAPER NUMBER**
2176	
MAIL DATE	**DELIVERY MODE**
04/04/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/517,213	YAMANE, MITOKU	
	Examiner	Art Unit	
	Quoc A. Tran	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☒ Claim(s) *2* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 December 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. PCT/JP03/05469 04/28/2003 and Japan 2002-174185 06/14/2002.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/13/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is a **Non-Final** in response to Patent Application filed on 12/08/2004, which is claimed priority of PCT//JP03/05469 04/28/2003 and JAPAN 2002-174185 dated ***06/14/2002***. Claims 1-7 are pending; Claim 1 is being independent claims (by Pacific Ring Services), attorney of record: YUASA, MOTOKO - Registration No: 53,822, at PACIFIC RING SERVICES, INC. 1143 CHRISTINA MILL DRIVE NEWARK,DE -Tel (302) 369-1518.

Information Disclosure Statement

A signed and dated copy of applicant's IDS, which was filed on 06/13/2006 are attached to this Office Action.

Drawings

The drawings are objected to under 37 CFR 1.83(a), because:

Claim 2 recites the limitation " *character-input keys is tilted from* ***northeast to southwest***." in Pages 14 Claim 2, However there in not any supported for the recited limitation as claimed. It is noted the Applicant's disclosure merely stated, "These twelve keys 55 are arranged in region 53 in such a manner that the long axes of the oval are tilted, more preferably, the axes point from *northeast to southwest* as illustrated in Figure 1..." See the Applicant disclosure at Second Para on Page 6. However, at Fig. 1 items 53 and 55 merely illustrated "tilted keys, but there is no indication of *northeast to southwest* direction", See Fig. 1 Items 53 and 55, which is not in consistent with the original disclosure.

Accordingly, the drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitation disclosed in claim 2, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Specification

Claim 2 objected to because of the following informalities:

Claim 2 recites the limitation " *character-input keys is tilted from northeast to southwest.*" in Pages 14 Claim 2, However there in not any supported for the recited limitation as claimed. It is noted the Applicant's disclosure merely stated, "These twelve keys 55 are arranged in region 53 in such a manner that the long axes of the oval are tilted, more preferably, the axes point from ***northeast to southwest*** as illustrated in Figure 1..." See the Applicant disclosure at Second Para on Page 6. However, at Fig. 1 items 53 and 55 merely illustrated "tilted keys, but there is no indication of *northeast to southwest* direction", See Fig. 1 Items 53 and 55, which is not in consistent with the original disclosure.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> ***The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.***

Claim 2 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, because of the following:

Claim 2:

Claim 2 recites the limitation " *character-input keys is* tilted ***from northeast to southwest.***" in Pages 14 Claim 2, However there in not any supported for the recited limitation as claimed. It is noted the Applicant's disclosure merely stated, "These twelve keys 55 are arranged in region 53 in such a manner that the long axes of the oval are tilted, more preferably, the axes point from *northeast to southwest* as illustrated in Figure 1..." See the Applicant disclosure at Second Para on Page 6. However, at Fig. 1 items 53 and 55 merely illustrated "tilted keys, but there is no indication of *northeast to southwest* direction", See Fig. 1 Items 53 and 55, which is not in consistent with the original disclosure, which is rendered the claimed indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the interest of compact prosecution, the application is further examined against the prior art, as stated below, upon the assumption that the applicants may overcome the above stated rejections under 35 U.S.C. 112.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> ***(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.***

Claims 1-2 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable by **Kang** US 20030063070A1, filed 11/02/2001 [hereinafter "Kang"], in view of **Swanson** US Patent No. 6,541,715 filed 05/24/2001 [hereinafter "Swanson"].

Regarding ***independent claim 1***,

Kang teaches:

> **An electronic apparatus comprising:**
>
> **an input means having character-input keys assigned to a matrix configuration wherein said character-input keys having different vertical and**

horizontal widths; the longitudinal axes of said character-input keys being tilted in a top view;

(See Fig. 2-5 and Para 17, 21 and →Kang discloses this limitation that is keyboards (i.e. the front view of the PDA item 24 in FIG. 5 includes the keyboard 34 in FIG. 4A. The PDA 24 includes a touch sensitive screen 44.) The keyboard 34 in FIG. 5 includes a number of other keys 48. may be provided on other handheld electronic devices such as two-way pagers, cellular phones and the like; wherein keyboards 30-34 having different key layouts facilitate access of the keys 4 by sweeping actions of the thumbs. Each row 10, 16 of keys 4 is tilted above a horizontal line 36 through its origin 12 so that each key 4 in the row 10, 16 is offset by a varying distance H above the horizontal line 36 and so on…)

display means for displaying the characters input by said character-input keys of said input means,

(See Fig. 5 and Para 18 and →Kang discloses this limitation that is keyboards of the front view of the PDA item 24 in FIG. 5 includes the keyboard 34 in FIG. 4A. The PDA 24 includes a touch sensitive screen 44. The keyboard 34 in FIG. 5 includes a number of other keys 48.)

In addition Kang does not expressly teach, but Swanson teaches:

said character- input keys having first and second contacts to input different characters; said first and second contacts being provided on first and second ends of said character-input keys in the longitudinal direction;

(See Fig. 1-4 and at Column 2 Lines 1-15→ Swanson discloses this limitation that is a handheld devices includes a the switching means to select a keyboard function (i.e. alphanumeric character or other keyboard function, See Swanson at Column 3, Lines 5-10), when two or more of the micros-witches associated with a particular key member are concurrently actuated. Also Swanson further discloses each key member 10 is biased into a neutral upright position as shown in FIG. 3 and is rockably mounted for movement in four diagonal directions, commonly referred to as "Northwest", "Southwest", "Northeast" and "Southeast", to temporary, unstable positions, such as the one shown in FIG. 4 and at Column 3, Lines 10-15.)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang, to include the step of said character- input keys having first and second contacts to input different characters; said first and second contacts being provided on first and second ends of said character-input keys in the longitudinal direction as taught by Swanson for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Claim 2,

Kang and Swanson teach the method of claim 1 and further comprise:

wherein said character-input keys are arranged in such a manner that the longitudinal axes of said character-input keys is tilted from northeast to southwest;

(See FIG. 4 and at Column 3, Lines 10-15→ Swanson discloses this limitation that character-input keys are rockably mounted for movement in four diagonal directions, commonly referred to as "Northwest", "Southwest", "Northeast" and "Southeast", to temporary, unstable positions, such as the one shown in FIG. 4 and at Column 3, Lines 10-15.)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang, to include the step of said wherein said character-input keys are arranged in such a manner that the longitudinal axes of said character-input keys is tilted from northeast to southwest as taught by Swanson for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Claim 5,

Kang and Swanson teach the method of claim 1 and further comprise:

third contacts that are capable of contacting said first contacts and said second contacts provided on said first and said second ends of said character-input keys; and third characters different from those assigned to said first and second ends are assigned to the center of said character-input keys wherein said first contacts and said second contacts touch said third contacts, thereby inputting said third characters assigned to the center of said character-input keys.

(See Fig. 1-4 and at Column 2 Lines 1-15→ Swanson discloses this limitation that is a handheld devices includes a the switching means to select a keyboard function (i.e. alphanumeric character or other keyboard function, See Swanson at Column 3, Lines 5-10), when two or more of the micros-witches associated with a particular key member are concurrently actuated. Also Swanson further discloses each key member 10 is biased into a neutral upright position as shown in FIG. 3 and is rockably mounted for movement in four diagonal directions, commonly referred to as "Northwest", "Southwest", "Northeast" and "Southeast", to temporary, unstable positions, such as the one shown in FIG. 4 and at Column 3, Lines 10-15.)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang, to include the step of said third contacts that are capable of contacting said first

contacts and said second contacts provided on said first and said second ends of said character-input keys; and third characters different from those assigned to said first and second ends are assigned to the center of said character-input keys wherein said first contacts and said second contacts touch said third contacts, thereby inputting said third characters assigned to the center of said character-input keys as taught by Swanson for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Claim 6,

Kang and Swanson teach the method of claim 5 and further comprise:

wherein said characters allocated to the center of said character input keys are numerals.

(See Fig. 2 item 11, 14 and 15→ Swanson discloses this limitation that is characters allocated to the center of said character input keys are numerals.)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang, to include the step of said characters allocated to the center of said character

input keys are numerals as taught by Swanson for the purpose of providing a predictable result of enabling portable telephones with flat button that can be used for up to four functions, with each function corresponding to one edge of the button by pressing down near the appropriate edge and provide a significant space saving advantage over regular buttons, since the space needed for one flat, four-function button would be about the same as that needed for four regular buttons if the amount of surface area available for selecting each function were to be kept the same in both arrangements, See Swanson at Column 1, Lines 25-40.

Claim 7,

Kang and Swanson teach the method of claim 1 and further comprise:

wherein said electronic apparatus is of a hand-held type.

(See Fig. 4A and Para 18 →Kang discloses this limitation that is the PDA 24 includes a touch sensitive screen 44 keyboard; wherein keyboards 30-34 having different key layouts facilitate access of the keys 4 by sweeping actions of the thumbs.)

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable by **Kang** US 20030063070A1, filed 11/02/2001 [hereinafter "Kang"], in view of **Swanson** US Patent No. 6,541,715 filed 05/24/2001 [hereinafter "Swanson"], further in view of **Chen** US 20020045463A1 filed 04/24/2001 [hereinafter "Chen"],

Claim 3,

Kang and Swanson do not further teach, but Chen teaches:

wherein said characters assigned to each of said ends of said character-input keys are phonetic letters;

(See Para 9→ Chen discloses this limitation that is a direct key-based search engine that generates the language characters based on a key sequence entered on the keypad in lieu of converting the phonetic characters to the language characters (i.e. Character-based languages (e.g., Chinese, Japanese, Korean, etc. see Para 3)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang and Swanson to include the step of said wherein said characters assigned to each of said ends of said character-input keys are phonetic letters as taught by Chen for the purpose of providing a predictable result that allow a user to enter phonetic characters (e.g., Pinyin) into a mobile device with as few keys as possible, and then automatically choose the most likely language character (e.g., Hanzi character) that the user intended, see Chen at Para 7.

Claim 4,

Kang, Swanson and Chen teach the method of claim 3 and further comprise:

having a Latin letter-Japanese character conversion means for converting the words expressed by using phonetic letters, which are entered by said character-input keys, into Japanese words.

(See Para 9→ Chen discloses this limitation that is a direct key-based search engine that generates the language characters based on a key sequence entered on the keypad in lieu of converting the phonetic characters to the language characters (i.e. Character-based languages (e.g., Chinese, Japanese, Korean, etc. see Para 3)

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kang and Swanson to include the step of said having a Latin letter-Japanese character conversion means for converting the words expressed by using phonetic letters, which are entered by said character-input keys, into Japanese words as taught by Chen for the purpose of providing a predictable result that allow a user to enter phonetic characters (e.g., Pinyin) into a mobile device with as few keys as possible, and then automatically choose the most likely language character (e.g., Hanzi character) that the user intended, see Chen at Para 7.

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc A. Tran whose telephone number is 571-272-8664. The examiner can normally be reached on 9AM - 5PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quoc A, Tran/
Patent Examiner
03/27/2008

/William L. Bashore/
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